

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

Effective Date: January 1, 2013

MU-16

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **January 2017**.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.*

**Series V-100 Aluminum Field Mullion for Vinyl Windows, Non-Impact Resistant and Impact Resistant**, manufactured by:

**WinDoor Incorporated**  
**7500 Amsterdam Drive**  
**Orlando, Florida 32832**  
**Telephone: (407) 481-8400**  
**www.windoorinc.com**

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

## PRODUCT DESCRIPTION

This evaluation report is for mulled window assemblies using vinyl windows manufactured by WinDoor Incorporated. The mulled window assemblies evaluated in this report are for non-impact resistant and impact resistant windows.

The mulled assembly consists of individual window units that are secured to the mullions described in this evaluation report. The mullions can be installed vertically (for side by side units) or the mullion may be used in horizontal applications as long as the dimensions indicated on the approved drawings are not exceeded. The mullions are secured directly to the rough opening of the window and can be attached to wood, concrete or steel substrates.

The frames of the individual window units are secured to the extruded aluminum mullion tube using No. 14 self tapping screws. Extruded aluminum wall T-clips are used to secure the aluminum mullion tubes to the wall framing.

This evaluation report contains mulled window assemblies using individual vinyl window products manufactured by WinDoor Incorporated that are currently listed in Texas Department of Insurance (TDI) product evaluation reports.

### Mullion Components:

**Mullion:** Manufactured from 6005-T61 aluminum. The outside dimensions are  $1 \frac{3}{8}$ " x  $4 \frac{3}{64}$ ".

**Mullion Components (Continued):**

**Wall T-Clip:** Manufactured from 6105-T5 (0.125" thick) aluminum. The dimensions are 8" x 4" x 2.5" x 0.125". This bracket clip is used to secure the aluminum mullion to the wall framing.

**LIMITATIONS**

**Design Drawings:** The mulled window assembly shall be constructed and installed in accordance with the following design drawings:

- Drawing No. 08-01698, sheets 1 through 3 of 3, titled Series V-100 Aluminum Field Mullion Wind Zone 3, Impact Resistant" dated July 19, 2012, signed and sealed by Luis R. Lomas, P.E. on July 24, 2012. The stated drawings will be referred to as "Approved Drawings" in this evaluation report. A copy of the approved drawings shall be available at the job site.

**Design Pressure Rating:** The design pressure rating for the mulled window assembly is dependent on the mullion load rating based on the mullion span and the dimensions of the individual windows in the mulled assembly, and the design pressure rating for the individual windows in the mulled assembly. Refer to the approved drawings to determine the mullion load rating for the mulled assembly based on the configuration of the mulled assembly.

**Maximum Sizes:** The height and width of each individual window in the mulled window assembly shall not exceed the maximum allowable height and width specified on the certification program labels for the individual windows. In addition, the maximum allowable dimensions for windows in the mulled window assembly shall be as specified on the approved drawings.

The following procedure should be used to determine the design pressure rating for the mulled window assembly:

1. Determine the tributary height or width and the mullion span (height or width) for the mulled window assembly. Refer to the mullion configuration sketches on the approved drawings for the mullion span (height or width) and the tributary height or width determination. **NOTE:** In no case shall the maximum allowable dimensions of the individual windows, as specified on the certification program labels and in the TDI product evaluation reports, exceed the window dimensions in the approved drawings.
2. Using the approved drawings, select the appropriate table. Locate the row or column with the mullion span (height or width). Locate the row or column with the tributary height or width. At the intersection of the row or column containing the mullion span and the row or column containing the tributary height or width, read the mullion load rating (in PSF).
3. Review the design pressure rating on the certification program label and in the TDI product evaluation report for each individual window of the mulled assembly.
4. If the design pressure rating for each individual window of the mulled assembly is greater than the mullion load rating determined from the table in the approved drawings, then the design pressure rating of the mulled assembly is the design pressure capacity determined from the table in the approved drawings.
5. If the design pressure rating for any of the individual windows is less than the mullion load rating determined from the table in the approved drawings, then the design pressure rating of the mulled assembly shall be the design pressure rating of the lowest rated individual window in the assembly.

**Impact Resistance:** The mullions can be used with either non-impact resistant or impact resistant windows. If the mullions are used with non-impact resistant windows, then the mulled window assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required. If the mullions are used with impact resistant windows, then the mulled window assemblies will not need to be protected with an impact protective system. Refer to the TDI evaluation reports for each of the windows in the mulled assembly to determine the locations where the mulled window assemblies can be used (ex. Inland I zone only or Inland I and Seaward zones).

**Product Identification:** A certification program label will be affixed to each individual window of the mulled assembly. Refer to the TDI evaluation report for each individual window in the mulled assembly for the information that must be specified on the certification program label. **NOTE:** The certification program label is for the performance characteristics of the individual windows in the mulled assembly and not for the mulled assembly. The design pressure rating for the mulled assembly is as specified in the Limitations Section of this evaluation report.

### INSTALLATION INSTRUCTIONS

**General:** The mulled window assembly shall be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this evaluation report. Detailed drawings and installation instructions are available from the manufacturer.

**Attachment of Window Frames to Mullions:** The window frames shall be anchored to the aluminum mullions with minimum No. 14 self tapping screws. The fasteners shall be of sufficient length to penetrate a minimum of three threads beyond the aluminum mullion wall. The fasteners shall be located and spaced in accordance with the approved TDI product evaluation report. Refer to the details shown in the approved drawings for the attachment of the windows to the mullions.

**Attachment of Mulled Assembly to Wall Framing:** The requirements for the wall framing shall be as specified in the TDI evaluation reports for the individual windows and as specified in the approved drawings. The mulled window assembly shall be secured to the wall framing using the type, size, quantity, and spacing of fasteners as specified in the TDI evaluation reports for the individual windows. As a point of reference for locating fasteners at window corners, where a window unit joins with a mullion shall be considered a corner location for a window.

**Attachment of Mullions to Wall Framing:** The mullions shall be secured to the wall framing using the wall T-clip. The wall T-clip shall be secured to the mullion and to the wall framing as specified in the approved drawings.

**Note:** The manufacturer's installation instructions shall be available on the job site during installation. The approved drawings shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.